



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/660,756	09/12/2003	Shohei Yamada	468-39	5993
23117 7590 07/19/2007 NIXON & VANDERHYE, PC 901 NORTH GLEBE ROAD, 11TH FLOOR ARLINGTON, VA 22203			EXAMINER DEAN, RAYMOND S	
			ART UNIT 2618	PAPER NUMBER
			MAIL DATE 07/19/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/660,756	<b>Applicant(s)</b> YAMADA ET AL.	
	<b>Examiner</b> Raymond S. Dean	<b>Art Unit</b> 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 April 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16, 18-23 and 47-60 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16, 18-23 and 47-60 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election without traverse of Group I (i.e., Claims 1 – 16, 18 – 23, and 47 – 60) in the reply filed on April 24, 2007 is acknowledged.

### ***Claim Rejections - 35 USC § 101***

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claim 22 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claimed "program" is not embodied or encoded or stored on a computer readable medium thus there is no interrelationship between the medium with the rest of the computer to permit the "program's" functionality to be realized (Please See Page 53 of the Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility).

### ***Double Patenting***

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29

Art Unit: 2618

USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims 2 – 9, 11 – 23 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 2 – 23 of copending Application No. 11/652472. Although the conflicting claims are not identical, they are not patentably distinct from each other because the features and concepts set forth in Claims 2 – 23 correspond to the features and concepts set forth in Claims 2 – 23 of Application 11/652472.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Note: The Applicants' claims are designated as ('756) and the reference claims are designated as ('472).

Claim 2 ('756) corresponds to Claim 2 ('472) except ('756) uses the following phrases: "the incoming or outgoing", "receiving of the", "the", and "when". ('756) has also deleted the following phrases: "a call termination detection step for", "a recovery detection step for", and "a recording stop step for", however, one of ordinary skill in the art would recognize that the reference application ('472) is the same concept and

Art Unit: 2618

functions the same as application ('756) with the exception of the above phrases and deletions. The changes are only cosmetic.

Claims 3 – 5 ('756) correspond to Claims 3 – 5 ('472) with the exception of the following deleted phrases: "a playback step" and "said recording step". One of ordinary skill in the art would recognize that the reference application ('472) is the same concept and functions the same as application ('756) with the exception of the above deleted phrases. The changes are only cosmetic.

Claim 6 ('756) corresponds to the combination of Claims 6, 5, and 1 ('472) (Please Note: Claim 6 depends from Claim 5, which depends from Claim 1) with the exception of the deleted phrases "wherein in said recording step said broadcast signal is recorded" and "in said receiving failure detection step". One of ordinary skill in the art would recognize that the reference application ('472) is the same concept and functions the same as application ('756) with the exception of the above deleted phrases. The changes are only cosmetic.

Claim 7 ('756) corresponds to Claim 7 ('472) with the exception the following deleted phrases: "in said recording step said" and "the". One of ordinary skill in the art would recognize that the reference application ('472) is the same concept and functions the same as application ('756) with the exception of the above deleted phrases. The changes are only cosmetic.

Claim 8 ('756) corresponds to Claim 8 ('472) with the exception the following deleted phrases: "said", "the", and "it is detected that". ('756) adds the phrases: "comprises a detector and a transmitter for transmitting" and "the detector detects that",

Art Unit: 2618

however, one of ordinary skill in the art would recognize that the reference application ('472) is the same concept and functions the same as application ('756) with the exception of the above phrases and deletions. The changes are only cosmetic.

Claim 9 ('756) corresponds to Claim 9 ('472) with the exception the following deleted phrase: "of a communication occurs". ('756) adds the phrase: "is detected", however, one of ordinary skill in the art would recognize that the reference application ('472) is the same concept and functions the same as application ('756) with the exception of the above phrase and deletion. The changes are only cosmetic.

Claim 11 ('756) corresponds to Claim 11 ('472) except ('756) makes minor cosmetic changes such as: the addition of the phrase "comprises a transmitter for transmitting" and the word "the" and the deletion of the words "signals" and "said". One of ordinary skill in the art would recognize that the reference application ('472) is the same concept and functions the same as application ('756) with the exception of the above changes.

Claims 12 – 23 ('756) corresponds to Claims 12 – 23 ('472) except ('756) makes minor cosmetic changes such as (Please Note: The following changes are not exhaustive):

Claim 12, Adding "receiver", "an incoming or outgoing", Deleting "receiving portion", "recording portion".

Claim 13, Adding "generating circuit", "recording", Deleting "signal", "said"

Claim 14, Adding "receiver", "to stop recording", Deleting "receiving portion", "for the broadcast signal".

Art Unit: 2618

Claim 15, Adding "generating circuit", "to stop recording", Deleting "generator portion", "recording portion".

Claim 16, Adding "the", "includes", Deleting "said", "contains"

Claim 17, Adding "receiver", "recorder", Deleting "receiving portion", "recording portion".

Claim 18, Adding "including", "information", Deleting "containing", "said"

Claim 19, Adding "of the receiving of the broadcast information", Deleting "signal reception".

Claim 20, Adding "information", Deleting "said".

Claim 21, Adding "stops communicating", Deleting "communication on said terminal"

Claims 22 – 23 are identical.

One of ordinary skill in the art would recognize that the reference application ('472) is the same concept and functions the same as application ('756) with the exception of the above changes.

### ***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

Art Unit: 2618

only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 18 – 19 are rejected under 35 U.S.C. 102(e) as being anticipated by Lee et al. (US 2002/0013143).

Regarding Claim 18, Lee teaches a broadcast recording system comprising a recording server including a recording device and an information terminal device having broadcast signal functions and communication functions (Figure 2, Section 0038), wherein the recording server records the broadcast information being received by the information terminal device when a failure of receiving is detected during receiving of the broadcast information by the information terminal device (Sections 0035 lines 1 – 4, 0038, not connecting within a certain period of time can be due the mobile phone being located in a region where the signal environment is not good).

Regarding Claim 19, Lee teaches all of the claimed limitations recited in Claim 18. Lee further teaches wherein the recording server stops recording of the broadcast information when the information terminal device detects recovery of the receiving of the broadcast information (Sections 0035 lines 1 – 4, 0038, when the radio environment is good a connection to the mobile can be made thus rendering the recording at the remote device (500) unnecessary).

### ***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and



Art Unit: 2618

the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1, 4, 10, 22 – 23, 51, 54, 59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Engstrom (US 7,065,333) in view of Lord (US 7,054,660).

Regarding Claim 1, Engstrom teaches a broadcast recording method utilizing a terminal device having broadcast signal receiving function and communication function (Figure 5, Cols. 8 lines 46 – 50, lines 51 – 55), comprising: detecting an incoming or outgoing call during receiving of a broadcast signal (Figure 8, Col. 10 lines 52 – 67, 11 lines 1 – 3).

Engstrom does not teach inquiring whether the broadcast signal should be recorded or not when an incoming or outgoing call is detected.

Lord teaches inquiring whether the broadcast signal should be recorded or not (Col. 11 lines 33 – 36, there are a plurality of scenarios in which the user requests for the broadcast signal to be recorded, one of which is an inquiry which prompts the user to request such a recording).

It would have been obvious to modify the method of Engstrom with the method of Lord for the purpose of enabling a user to record specific broadcasts as taught by Lord.

Regarding Claims 4, 54, Engstrom in view of Lord teaches all of the claimed limitations recited in Claims 1, 51. Engstrom further teaches wherein the broadcast signal is recorded in a recording device installed in the terminal device (Col. 10 lines 52 – 67, 11 lines 1 – 3).

Regarding Claim 10, Engstrom teaches an information terminal device comprising a broadcast signal receiving function and a communication function,

Art Unit: 2618

wherein a currently received broadcast signal is recorded when an outgoing or incoming call is detected during receiving of a broadcast signal (Figure 8, Cols. 10 lines 52 – 67, 11 lines 1 – 3).

Engstrom does not teach wherein the information terminal device comprises an interface configured to inquire whether the currently received broadcast signal should be recorded or not.

Lord teaches wherein the information terminal device comprises an interface configured to inquire whether the currently received broadcast signal should be recorded or not (Col. 11 lines 33 – 36, there are a plurality of scenarios in which the user requests for the broadcast signal to be recorded, one of which is an inquiry which prompts the user to request such a recording).

It would have been obvious to modify the method of Engstrom with the method of Lord for the purpose of enabling a user to record specific broadcasts as taught by Lord.

Regarding Claim 22, Engstrom in view of Lord teaches all of the claimed limitations recited in Claim 1. Engstrom further teaches a program for implementing broadcast recording (Col. 8 lines 46 – 50, mobile phones and PDAs comprise processors, which execute program instructions, that enable said PDAs and phones to conduct various functions).

Regarding Claim 23, Engstrom in view of Lord teaches all of the claimed limitations recited in Claim 22. Engstrom further teaches a recording medium holding a program for implementing the broadcast recording method (Col. 8 lines 46 – 50, mobile phones and PDAs comprise processors, which execute program instructions, that

Art Unit: 2618

enable said PDAs and phones to conduct various functions, said instructions are stored in memory).

Regarding Claims 51, 59, Engstrom teaches a broadcast recording method utilizing a terminal device having broadcast signal receiving function and communication function (Figure 5, Cols. 8 lines 46 – 50, lines 51 – 55), comprising: detecting an incoming or outgoing call during receiving of a broadcast signal (Figure 8, Col. 10 lines 52 – 67, 11 lines 1 – 3); and recording the broadcast signal based on the automatic mode when an incoming or outgoing call is detected (Col. 10 lines 52 – 67, 11 lines 1 – 3).

Engstrom does not teach selecting a manual mode for inquiring whether the broadcast signal should be recorded or not, or an automatic mode for recording automatically the broadcast signal.

Lord teaches selecting a manual mode for inquiring whether the broadcast signal should be recorded or not, or an automatic mode for recording automatically the broadcast signal (Col. 11 lines 33 – 36, there are a plurality of scenarios in which the user requests for the broadcast signal to be recorded, one of which is an inquiry which prompts the user to request such a recording, another scenario is one in which the user can designate a specific broadcast to automatically recorded).

It would have been obvious to modify the method of Engstrom with the method of Lord for the purpose of enabling a user to record specific broadcasts as taught by Lord.

Art Unit: 2618

10. Claims 2 – 3, 52 – 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Engstrom (US 7,065,333) in view of Lord (US 7,054,660), as applied to Claims 1, 51 above, and further in view of Cahill (5,150,384).

Regarding Claims 2, 52, Engstrom in view of Lord teaches all of the claimed limitations recited in Claims 1, 51. Engstrom further teaches detecting termination of the incoming or outgoing call (Figure 8, Col. 10 lines 52 – 67, 11 lines 1 – 3) and stopping recording of the broadcast signal when the termination of the incoming or outgoing call is detected in said call termination detection step or when recovery of the receiving of the broadcast signal reception is detected (Figure 8, Col. 10 lines 52 – 67, 11 lines 1 – 3).

Engstrom in view of Lord does not teach detecting recovery of the receiving of the broadcast signal.

Cahill further teaches detecting recovery of the receiving of the broadcast signal (Col. 7 lines 17 – 35, the loop will speed up during signal recovery, the signal will be recovered when there is exiting of a fade).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Engstrom in view of Lord with the failure detection method of Cahill for the purpose of providing optimal receiver performance during fading conditions as taught by Cahill.

Regarding Claims 3, 53, Engstrom in view of Lord and in further view of Cahill teaches all of the claimed limitations recited in Claims 2, 52. Engstrom further teaches

Art Unit: 2618

playing back recorded broadcast signal information, when the recording of the broadcast signal is stopped (Col. 10 lines 36 – 39, lines 52 – 67, 11 lines 1 – 3).

11. Claims 5, 7, 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Engstrom (US 7,065,333) in view of Lord (US 7,054,660), as applied to Claim 1 above, and further in view of Norita (JP 111136202).

Regarding Claims 5, 55, Engstrom in view of Lord teaches all of the claimed limitations recited in Claims 1, 51. Engstrom in view of Lord does not teach wherein the broadcast signal is recorded in a recording device installed in an external recording server.

Norita teaches wherein a broadcast signal is recorded in a recording device installed in an external recording server (Abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Engstrom in view of Lord with the external recording server of Norita for the purpose providing a backup recording means in case of a failure as taught by Norita.

Regarding Claim 7, Engstrom in view of Lord and in further view of Cahill teaches all of the claimed limitations recited in Claim 5. Engstrom further teaches the impossibility of recording said broadcast signal in a recording device installed in said terminal device (Col. 8 lines 46 – 50, lines 63 – 65, typical data stores in PDAs have limited space thus when the data store is full future broadcast data cannot be

Art Unit: 2618

recorded). Norita further teaches wherein the broadcast signal is recorded in a recording device installed in an external recording server (Abstract).

12. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Engstrom (US 7,065,333) in view of Cahill (5,150,384).

Regarding Claim 6, Engstrom teaches a broadcast recording method utilizing a terminal device having a broadcast signal receiving function and a communication function (Figure 5, Cols. 8 lines 46 – 50, lines 51 – 55), comprising: detecting an incoming or outgoing call during receiving of a broadcast signal (Figure 8, Col. 10 lines 52 – 67, 11 lines 1 – 3); and recording the broadcast signal in the terminal device or in a recording device installed in an external recording server when an incoming or outgoing call is detected or recording the broadcast signal in a recording device installed in an external recording server when a failure to receive the broadcast signal is detected (Col. 10 lines 52 – 67, 11 lines 1 – 3).

Engstrom does not teach detecting a failure to receive the broadcast signal during the receiving of a broadcast.

Cahill teaches detecting a failure to receive the broadcast signal during the receiving of a broadcast (Col. 7 lines 17 – 35, the loop will speed up during signal recovery, the signal will be recovered when there is exiting of a fade).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Engstrom in view of Lord with the failure

Art Unit: 2618

detection method of Cahill for the purpose of providing optimal receiver performance during fading conditions as taught by Cahill.

13. Claims 8 – 9, 12 – 16, 57 – 58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Engstrom (US 7,065,333) in view of Lee et al. (US 2002/0013143)

Regarding Claim 8, Engstrom teaches an information terminal device comprising a broadcast signal receiving function and a communication function (Figure 5, Cols. 8 lines 46 – 50, lines 51 – 55).

Engstrom does not teach a detector and a transmitter for transmitting a command signal for recording a currently received broadcast signal in an external recording server when the detector detects that the broadcast signal cannot be received.

Lee teaches a detector and a transmitter for transmitting a command signal for recording a currently received broadcast signal in an external recording server when the detector detects that the broadcast signal cannot be received (Sections 0035 lines 1 – 4, 0038, not connecting within a certain period of time can be due the mobile phone being located in a region where the signal environment is not good).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Engstrom with the above capability of Lee for the purpose of providing backup storage for broadcast information when the mobile cannot record said information as taught by Lee.

Regarding Claim 9, Engstrom in view of Lee teaches all of the claimed limitations recited in Claim 8. Engstrom further teaches wherein the currently received broadcast signal is recorded when an outgoing or incoming call is detected (Figure 8, Col. 10 lines 52 – 67, 11 lines 1 – 3).

Regarding Claim 12, Engstrom teaches a communication device comprising: a broadcast signal receiver for receiving the broadcast signal (Col. 8 lines 53 – 55); a receiving signal recorder for recording the broadcast information acquired from the received broadcast signal (Figure 8, Col. 10 lines 52 – 67, 11 lines 1 – 3), an incoming-outgoing call detector for detecting an incoming or outgoing call, or termination of an incoming or outgoing call (Figure 8, Col. 10 lines 52 – 67, 11 lines 1 – 3); and a recording-start/recording-stop/playback command information generating circuit for generating recording-start, recording-stop, and playback-command information (Figure 8, Col. 10 lines 36 – 39, lines 52 – 67, 11 lines 1 – 3), wherein the recording-start/recording-stop/playback command information generating circuit sends recording command information for recording the broadcast information when an incoming or outgoing call is detected by the incoming-outgoing call detector portion and/or notifies the receiving signal recording portion about the broadcast signal recording command information (Figure 8, Col. 10 lines 52 – 67, 11 lines 1 – 3).

Engstrom does not teach a receiving-status detector for detecting a status of the broadcast signal receiving; wherein the recording-start/recording-stop/playback command information generating circuit sends recording command information for recording the broadcast information signal to an external recording server via a



Art Unit: 2618

communication network when a broadcast signal receiving failure is detected by the receiving-status detector, sends recording command information for recording the broadcast information to an external recording server via a communication network when an incoming or outgoing call is detected by the incoming-outgoing call detector and/or notifies the receiving signal recorder about broadcast signal recording command information.

Lee teaches a receiving-status detector for detecting a status of the broadcast signal receiving (Sections 0035 lines 1 – 4, 0038, not connecting within a certain period of time can be due the mobile phone being located in a region where the signal environment is not good); wherein the recording-start/recording-stop/playback command information generating circuit sends recording command information for recording the broadcast information signal to an external recording server via a communication network when a broadcast signal receiving failure is detected by the receiving-status detector (Sections 0035 lines 1 – 4, 0038, not connecting within a certain period of time can be due the mobile phone being located in a region where the signal environment is not good).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Engstrom with the above capability of Lee for the purpose of providing backup storage for broadcast information when the mobile cannot record said information as taught by Lee.

Regarding Claim 13, Engstrom in view of Lee teaches all of the claimed limitations recited in Claim 12. Engstrom further teaches sending recording command

Art Unit: 2618

information for recording the broadcast information when the incoming-outgoing call detector detects an incoming or outgoing call (Figure 8, Col. 10 lines 52 – 67, 11 lines 1 – 3). Lee further teaches recording command information for recording the broadcast information to the external recording server via the communication network when the receiving signal recorder cannot perform recording (Sections 0035 lines 1 – 4, 0038).

Regarding Claim 14, Engstrom in view of Lee teaches all of the claimed limitations recited in Claim 12. Engstrom further teaches wherein the recording-start/recording-stop/playback command information generating circuit sends recording stop command information to stop recording of the broadcast information when termination of a call is detected by the incoming-outgoing call detector and/or reports the recording stop information to the receiving signal recorder (Figure 8, Col. 10 lines 52 – 67, 11 lines 1 – 3). Lee further teaches sending recording stop command information on the broadcast signal to the external recording server over the communication network when restoration of broadcast signal receiving detected by the receiving status detector (Sections 0035 lines 1 – 4, 0038, when the radio environment is good a connection to the mobile can be made thus rendering the recording at the remote device (500) unnecessary), a playback information receiving portion for receiving playback information from the recording server over the communication network; and a playback portion for playing back said playback information (Section 0039, the user can receive the data from the remote device for playback).

Regarding Claim 15, Engstrom in view of Lee teaches all of the claimed limitations recited in Claim 12. Engstrom further teaches wherein said recording-

Art Unit: 2618

start/recording-stop/playback command information generating circuit sends recording/playback command information when there is a recording stop command information to stop recording of the broadcast signal (Figure 8, Col. 10 lines 52 – 67, 11 lines 1 – 3) and reports the recording/playback information when the recording stop command information is reported to the receiving signal recorder (Figure 8, Col. 10 lines 52 – 67, 11 lines 1 – 3). Lee further teaches sending recording stop command information to stop recording of the broadcast signal to the external recording server (Sections 0035 lines 1 – 4, 0038, when the radio environment is good a connection to the mobile can be made thus rendering the recording at the remote device (500) unnecessary).

Regarding Claim 16, Engstrom in view of Lee teaches all of the claimed limitations recited in Claim 15. Engstrom further teaches wherein the recording/playback information includes as a playback time the time from generating of the recording command information to the time when the recording stop information is generated (Figure 8, Col. 10 lines 52 – 67, 11 lines 1 – 3, the portion that is played back is the portion from the point of interruption to the ending of the recording, which is also the ending of the interruption, this portion has a time period associated with it).

Regarding Claim 57, Engstrom teaches a broadcast recording method utilizing a terminal device having broadcast signal receiving function and communication function (Figure 5, Cols. 8 lines 46 – 50, lines 51 – 55).

Engstrom does not teach detecting a failure to receive a broadcast signal during receiving of a broadcast and recording the broadcast signal when a failure of receiving broadcast signal is detected.

Lee teaches detecting a failure to receive a broadcast signal during receiving of a broadcast and recording the broadcast signal when a failure of receiving broadcast signal is detected (Sections 0035 lines 1 – 4, 0038).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Engstrom with the above capability of Lee for the purpose of providing backup storage for broadcast information when the mobile cannot record said information as taught by Lee.

Regarding Claim 58, Engstrom in view of Lee teaches all of the claimed limitations recited in Claim 57. Lee further teaches wherein the broadcast signal is recorded in a recording device installed in an external recording server when it is impossible to record the broadcast signal in a recording device installed in the terminal device (Sections 0035 lines 1 – 4, 0038, not connecting within a certain period of time can be due the mobile phone being located in a region where the signal environment is not good).

14. Claims 11, 47, 50, 56, 60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Engstrom (US 7,065,333) in view of Lord (US 7,054,660), as applied to Claim 10 above, and further in view of Lee et al. (US 2002/0013143).

Regarding Claims 11, 60, Engstrom in view of Lord teaches all of the claimed limitations recited in Claims 10, 59. Engstrom in view of Lord does not teach wherein the device comprises a transmitter for transmitting a command signal to record the currently received broadcast signal on an external recording server when it is detected that the broadcast signal cannot be received.

Lee teaches wherein the device comprises a transmitter for transmitting a command signal to record the currently received broadcast signal on an external recording server when it is detected that the broadcast signal cannot be received (Sections 0035 lines 1 – 4, 0038, not connecting within a certain period of time can be due the mobile phone being located in a region where the signal environment is not good).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Engstrom in view of Lord with the above capability of Lee for the purpose of providing backup storage for broadcast information when the mobile cannot record said information as taught by Lee.

Regarding Claims 47, 50, 56, Engstrom in view of Lord teaches all of the claimed limitations recited in Claims 1, 4, 51. Engstrom in view of Lord does not teach wherein the broadcast signal is recorded in a recording device installed in an external recording server when it is impossible to record the broadcast signal in a recording device installed in the terminal device.

Lee teaches wherein the broadcast signal is recorded in a recording device installed in an external recording server when it is impossible to record the broadcast

Art Unit: 2618

signal in a recording device installed in the terminal device (Sections 0035 lines 1 – 4, 0038, not connecting within a certain period of time can be due the mobile phone being located in a region where the signal environment is not good).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Engstrom in view of Lord with the above capability of Lee for the purpose of providing backup storage for broadcast information when the mobile cannot record said information as taught by Lee.

15. Claims 20 – 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al. (US 2002/0013143) in view of Engstrom (US 7,065,333)

Regarding Claim 20, Lee teaches all of the claimed limitations recited in Claim 18. Lee further teaches wherein the recording server records broadcast information currently received by information terminal device (Section 0038).

Lee does not teach recording when the information terminal starts communicating during the receiving of the broadcast information.

Engstrom teaches recording when the information terminal starts communicating during the receiving of the broadcast information (Col. 10 lines 52 – 67, 11 lines 1 – 3).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Lee with the recording feature of Engstrom for the purpose of enabling a mobile user to obtain desired broadcast information when there is an incoming or outgoing call as taught by Engstrom.

Regarding Claim 21, Lee teaches all of the claimed limitations recited in Claim 18. Lee further teaches wherein the recording server stops recording of the broadcast information (Sections 0035 lines 1 – 4, 0038, when the radio environment is good a connection to the mobile can be made thus rendering the recording at the remote device (500) unnecessary).

Lee does not teach stopping recording when the information terminal device stops communicating.

Engstrom stops recording when the information terminal device stops communicating (Col. 10 lines 52 – 67, 11 lines 1 – 3).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Lee with the recording feature of Engstrom for the purpose of enabling a mobile user to obtain desired broadcast information when there is an incoming or outgoing call as taught by Engstrom.

16. Claims 48 – 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Engstrom (US 7,065,333) in view of Lord (US 7,054,660) in view of Cahill (5,150,384), as applied to Claims 2, 3 above, and further in view of Lee et al. (US 2002/0013143).

Regarding Claims 48 – 49, Engstrom in view of Lord and in further view of Cahill teaches all of the claimed limitations recited in Claims 2, 3. Engstrom in view of Lord and in further view of Cahill does not teach wherein the broadcast signal is recorded in a recording device installed in an external recording server when it is impossible to record the broadcast signal in a recording device installed in the terminal device.

Lee teaches wherein the broadcast signal is recorded in a recording device installed in an external recording server when it is impossible to record the broadcast signal in a recording device installed in the terminal device (Sections 0035 lines 1 – 4, 0038, not connecting within a certain period of time can be due the mobile phone being located in a region where the signal environment is not good).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Engstrom in view of Lord and in further view of Cahill with the above capability of Lee for the purpose of providing backup storage for broadcast information when the mobile cannot record said information as taught by Lee.

### ***Conclusion***

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raymond S. Dean whose telephone number is 571-272-7877. The examiner can normally be reached on Monday-Friday 6:00-2:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward F. Urban can be reached on 571-272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Art Unit: 2618

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Raymond S. Dean

July 2, 2007



EDWARD F. URBAN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600